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NO. VI.—BY DAVID KING, M.D., NEWPORT.

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Erysipelas, its Causes and Treatment.

ERYSIPELAS derives its name from one of its local characters; either from the redness of the skin, or from its disposition to spread over the cutaneous surface. By some writers, the origin of the term is referred to the Greek words, *ερωδρος* and *πelas*; by others to *ερω* and *πelas*. The opinions of medical authors have varied with regard to the precise signification of the term, and the forms of inflammation it should represent. The highest modern authorities, however, almost uniformly agree in appropriating the term erysipelas to a particular modification of inflammation of the skin, or of the skin and cellular tissue, accompanied by a peculiar form of constitutional disturbance. Erysipelatous inflammation of the skin, or of the skin and subjacent adipose and cellular tissue, is characterized by redness of the skin, tumefaction of the subcutaneous cellular tissue, a burning, stinging or tensile pain, and a tendency to spread to adjoining parts. The local disease uniformly bears a strict relation to a peculiar constitutional disorder, and, in our view, is symptomatic of the constitutional affection. An aggravation of the constitutional disturbance, however, may frequently be traced to the severity of the local inflammation, or to the structure and relations of the part where it fixes its seat.

We shall consider the disease under the three forms of *Simple, Phlegmonous, and Edematous Erysipelas*.

I. *Simple Erysipelas*—*E. Simplex*.—Simple erysipelas, like the other forms of the disease, when it does not arise from the direct impression of agents on the skin, is preceded by febrile disturbance, disorder of the digestive organs, of the nervous and circulating systems, pain in the epigastrium, or nausea, foul and dry tongue, full or hard and frequent pulse, and prostration of the animal powers. On the second or third day of the constitutional excitement, the local disease manifests itself upon the skin. The inflammation is confined to some irregularly circumscribed portion of the skin; generally of the face, which is red, smooth and shining. There is usually slight tumefaction; the degree, however, depending on the severity of the local inflammation. The color of the skin varies from a bright scarlet to a deep livid tinge. The

pain is peculiar; it is prickling, smarting or pungent, and often accompanied with a sensation of a dry and burning heat, extending over the whole inflamed surface. These local phenomena begin to diminish on the third or fourth day from the manifestation of the disease upon the skin, when vesicles appear on the surface. The fluid discharged by these vesicles is formed into thin, yellow crusts, which afterwards change their color to black or brown. The disease generally terminates about the tenth day, by resolution, or with desquamation of the cuticle, and detachment of the crusts formed by the vesicles.

Simple erysipelas sometimes assumes an erratic form, suddenly disappearing in one part of the skin, to appear in another; or successively travelling over the whole surface of the body.* A sudden resolution of this disease, on the skin, is sometimes followed by a metastasis of the inflammation to some internal organ, as the gastro-pulmonary mucous membrane, or to the brain and its membranes.

II. *Phlegmonous Erysipelas* — *E. Phlegmonosum*. — Phlegmonous erysipelas involves the skin, the subcutaneous cellular tissue and adipose membrane; and, in its highest grades, the inflammation is extended to the inter-muscular and sub-aponeurotic cellular substance, and even to the fasciæ and fibrous tissues. It most commonly terminates in suppuration or sloughing, and extensive disorganization of the cellular and adipose tissue. The local and general phenomena are of a higher grade than in simple erysipelas. The local disease is preceded by rigors, and severe constitutional disturbance, with the exception of some few cases, arising from injuries, in which the local disorder seems to precede the occurrence of constitutional excitement. In phlegmonous erysipelas of the limbs, there is severe tensive or burning pain, with great tumefaction.† The inflamed surface is of a deep red; the redness disappearing on pressure, and returning, more or less rapidly, according to the degree of inflammation.

When phlegmonous erysipelas terminates in resolution, the symptoms abate from the fourth to the sixth day, and vesication and desquamation of the cuticle occur, as in simple erysipelas. The disease, however, frequently passes into the suppurative stage, about the fifth or six day. The pain then becomes pulsating; the patient may be affected with shivering; suppuration commences in the cellular tissue; there is diminution in the firmness of the swelling; it acquires a soft and doughy feel. The cellular tissue becomes more or less disorganized; as discharged from incisions, it has the appearance of tow soaked in purulent matter. The effusion in the cellular tissue is at first a milky serum, then purulent matter, which Dupuytren, in many instances, found as consistent as lard. This last deposition was considered by him as the prelude to sloughing of the cellular tissue. The skin suffers also with the cellular and adipose tissues, which furnish it with its nutrient vessels. It either ulcerates or sloughs. In those severe cases, in which the

* Occasionally, as pointed out by Dr. Graves, of Dublin, simple erysipelas pursues a symmetrical march, on both sides of the median line.

† Dupuytren states that he was often able to predict the occurrence of this disease by a peculiar pain in the skin, its roseate hue, the edema of the cellular tissue, and the pitting on pressure. These symptoms occurred from twenty-four to thirty hours before rigors and febrile disturbance.

cellular tissue is deeply implicated, and extensive diffusive suppuration has occurred, the skin becomes livid and covered with phlyctenæ, and sloughs, according to the degree of disorganization of the cellular tissue, and the destruction of its nutrient arteries. The structures which compose the joints, in severe phlegmonous erysipelas of the limbs, may become implicated, and the inflammation, thus induced, may terminate in purulent effusion in the joint, or in ulceration of the articular cartilages.

In the first stage of phlegmonous erysipelas, the constitutional disturbance is severe, and often aggravated by effusion under aponeurotic expansions, or by the wide extension of the inflammation on the skin, and superficial or deep-seated cellular tissue. In the suppurative stage the constitutional affection assumes a typhoid type, and is attended with delirium, sleeplessness, great nervous irritation, diminution of the secretions, or diarrhœa. The fever, in this stage, is liable to exacerbations and remissions. It may be remarked that the constitutional disorder and the local affection are, in some instances, remarkably modified by the agency of certain causes of the disease. In some epidemic constitutions of the air, gangrene has been known to occur, as the result of the primary inflammation of phlegmonous erysipelas, without the supervention of the suppurative stage.

When the patient does not sink, from the extent of suppuration and sloughing of the cellular tissue, from the contamination of the blood by the absorption of purulent matter, from colliquative sweat and diarrhœa, from inflammation of the internal organs, or from the occurrence of phlebitis and the formation of visceral abscesses, a long and tedious process of reparation, often interrupted by the destruction of cicatrices, will in severe cases constitute the close of the disease. This work of reparation is often imperfectly performed, because beyond the powers of nature and art; especially in those cases where the ravages of the disease have extended to the inter-muscular and sub-aponeurotic cellular tissue, and rendered the adhesion of fasciæ, muscles, tendons and bones, essential to the cure. The seat of phlegmonous erysipelas is most frequent in the limbs, but may occur in the face, scalp and neck.

III. *Œdematous Erysipelas*—*E. Œdematodes*.—The chief peculiarity of œdematous erysipelas is the character of the swelling, which pits on pressure, as in anasarca of the limbs. The skin is smooth and shining. Redness, pain and heat exist in a moderate degree. The tumefaction increases slowly, from the effusion of serum and purulent matter. If the disease continues to advance, a shining redness appears on the surface of the swollen limb, and the patient is affected with severe pain in the inflamed part. A gradual cessation of this pain, and a change of the redness of the skin to a livid and leaden tinge, evince the invasion of gangrene. This form of the disease, in favorable cases, may terminate in resolution, with or without vesications. But, as it occurs most frequently in broken-down constitutions, and in patients affected with organic disease or the dropsical diathesis, gangrene is its most common termination. It is especially liable to this termination when seated in dropsical limbs, in the genital organs of women, and the prepuce and scrotum of men.

The anatomical dispositions and relations of the cellular tissue and adipose membrane, varying in different portions of the body, give rise to important modifications of erysipelas, with respect to its seat.

Erysipelas of the scalp generally assumes the phlegmonous form. When originating from a wound in the head, it commences from the fifth to the twelfth day after the occurrence of the injury. It is marked by great tumefaction of the scalp, at first œdematous; afterwards tense, and exceedingly painful to the touch or on pressure. If unsubdued, it rapidly terminates in suppuration and sloughing of the cellular tissue, and of portions of the occipito-frontal aponeurosis. A detachment of the pericranium, and necrosis of the bones of the cranium, may likewise occur. Notwithstanding the extensive destruction of the cellular tissue of the scalp, the skin often escapes, because its nutritive vessels are distributed, in the form of large trunks, immediately under its surface, and without intimate connections with the sub-epicranial tissue. In severe cases, the brain is implicated, and the patient often passes from delirium into fatal coma.

Erysipelas of the face is accompanied by great tumefaction. The distribution of cellular tissue is such as to permit the eyelids, lips, cheeks, &c., to be swelled out, as Willan remarks, like a bladder distended with water. It generally terminates in resolution, or by vesication. Purulent matter, however, is sometimes effused in the cellular tissue of the eyelids, or of the parotid or sub-maxillary glands. The contiguity of the disease to the brain renders that organ liable to be involved in inflammation, either simultaneous or metastatic.

Erysipelas of the throat, larynx and neck, arises generally from the influence of an epidemic state of the air. It usually commences in the fauces and pharynx, and extends through the nostrils and mouth to the face and scalp. It sometimes passes from the throat to the larynx, and to the cellular tissue of the neck, causing excessive pressure upon the bloodvessels and other important parts, and terminating, if not relieved by free incisions, in death from suffocation, or congestion in the brain and lungs. This form of erysipelas, commencing in the throat, and passing through the nostrils and mouth to the skin, has been noticed in protracted cases of malignant fever in hospitals. The patient often sinks under delirium and diarrhoea.

Erysipelas of the mammae, in women, occurs sometimes in the phlegmonous form, a few days after delivery.

Erysipelas, in the phlegmonous form, is sometimes combined with inflammation of the absorbents. This complication is most frequent in adult males, especially sailors and soldiers. The inflammation commences in the absorbents, around irritable ulcers of the inferior extremities, or from a cicatrized surface, and spreads, till it involves the whole chain of lymphatics, together with the cutaneous and cellular textures of the limb. Its progress and terminations are already illustrated in the description of phlegmonous erysipelas of the extremities.

Erysipelas is often complicated with phlebitis. Spontaneous erysipelas has sometimes given rise to inflammation of the veins. The co-existence of erysipelas and phlebitis, however, can very generally be

traced to wounds, or exposure of the veins from injuries or surgical operations. The early stage of this complication is characterized by the symptoms of acute phlegmonous erysipelas. The subsequent stage is marked by excessive prostration. The typhoid symptoms result from the occurrence of diffuse suppuration in the wounded or exposed veins, from the consequent circulation of purulent matter in the capillary venous system, and from the formation of abscesses in the various inflamed points of that system.

Erysipelas sometimes presents an intermittent character. In this form it is generally associated with neuralgia.

Erysipelas of infants is mostly confined to the period of the first few weeks after birth. In this period it seems to be connected with umbilical irritation. It commences at the umbilicus, the genital organs, or in the hypogastric region, and spreads over the abdomen, or along the thighs. The peritoneum and umbilical vein are often inflamed. Gangrene is a common termination of erysipelas infantum, affecting the genital organs, and prevailing under the influence of the impure air of lying-in and foundling hospitals. At a later period of life, the head and extremities are its most frequent seats. A fatal form, commencing in the genital organs, however, has sometimes attacked children from three to six years of age, whose constitutions have been impaired by the influence of impure air and an unwholesome diet. Erysipelas infantum may terminate in resolution, vesication, suppuration or gangrene.

Causes.—In enumerating the causes of erysipelas, it is not possible to draw, with exactness, the line of demarcation between the predisposing and exciting causes. Hence, without regard to method, we may sometimes combine them under the same head. Among the predisposing causes we may mark hereditary predisposition; acquired predisposition, from previous attacks; stimulating and nutritious diet, unaccompanied by sufficient exercise; plethora; vitiated state of the system produced by the excessive use of fermented liquors, even when combined with severe labor; neglect of periodical bloodletting; and a bilious temperament. General derangement of the secretory apparatus is another powerful cause. The suppression of the hæmorrhoidal discharge, and other accustomed secretions, will often give rise to the disease. In some instances of amenorrhœa, erysipelas has occurred at regular intervals of a month. A peculiar irritability of the cutaneous capillaries, and of those of the digestive mucous membrane, may also predispose to the disease.

Chemical and mechanical irritants, applied to the cutaneous and cellular textures, are capable of producing erysipelas, when aided by an essentially bad habit of body, by gastric disturbance, or by an irritable and impaired constitution. Of this class we may consider wounds, contused, punctured, incised and lacerated, especially of the membranous expansions and of the superficial bursæ; compound fractures; surgical operations, performed in unhealthy constitutions, and without just preparatory and subsequent treatment; the application of improper compression and irritating ointments, to wounds, ulcers, and other local diseases; useless incisions in the scalp, for the purpose of removing ex-

travasated blood; abscesses forming under aponeuroses; the action of the sun and of fire; the contact of certain vegetable and animal poisons; want of cleanliness; friction of rough clothing, with fatigue, as in forced marches in the case of soldiers; inoculation of putrid animal substances and poisonous animal secretions; punctures and venesection; a cold, damp blast of air, acting upon a solution of continuity, upon an irritable ulcer, or upon the whole surface of the body in a state of perspiration. Sudden emotions of the mind, and the ingestion of particular articles of diet, will sometimes excite an immediate development of the disease.

Erysipelas is of most frequent occurrence in spring and autumn. In some constitutions it is constantly developed at these seasons. It sometimes prevails as an epidemic. Cold, damp winds from the east have been generally observed during the epidemic constitution of the atmosphere. It has most frequently presented itself under the epidemic or endemic forms, within the precincts of hospitals, where the influence of the epidemic state of the atmosphere is aided by exhaustion from previous disease, and by the depressing effect of the air, contaminated by animal exhalations, particularly from suppurating surfaces. In hospitals it was formerly very prevalent, especially in patients affected with ulcers, or wounds from injuries or surgical operations. At the present day, a vast diminution of such cases has been produced, by a more severe attention to the pursuit of the antiphlogistic regimen, to the application of appropriate surgical dressings, and to the maintenance of cleanliness and due ventilation of the wards.

Erysipelas has seemed, under certain circumstances, to be infectious, especially in crowded, filthy, and badly-ventilated habitations. The occasionally contagious nature of erysipelas is sustained by the opinions of Pitcairn, Wells, Parr, Baillie, Sir Astley Cooper, Dickson, Weatherhead, Stevenson, Arnott, Gibson, Bury, Bright, Copland and Lawrence. It must, however, be conceded to the advocates of the opposite opinion, that the observations confirmatory of the contagious nature of erysipelas, have been mostly drawn from cases in which the patients had been exposed to the same general causes of the disease.

From a review of the various causes, it is evident that sometimes a concurrence of many is essential to the production of the disease, and, at other times, in a constitution of a peculiar diathesis, the most trivial local excitant will give origin to it.

The essential nature of erysipelas is not to be explained in the present state of medical science. It is to be found in a peculiar form of vascular action, or in a peculiar change in the vital affinities of the capillaries and their contents, which conditions are, as yet, unknown to us. It may be proper, however, to note a few important points in its pathology.

Erysipelas presents the local phenomena of inflammation in the textures affected, the skin and cellular tissue. The irritation of the capillaries is peculiar. It deprives them of the power of secreting coagulable lymph. Hence the diffusive character of the inflammation. The local inflammation is accompanied by a general vascular and nervous disturbance, and terminates in resolution, vesication, suppuration, and sloughing or gangrene. The nervous system is remarkably affected in this

form of inflammation. In all cases, there is a loss of balance between the nervous and vascular systems. Mr. Travers has offered an explanation of the affection of the nervous centres, by adverting to the fact of the sympathies of the skin being more direct and powerful with the brain, than with the heart. Hence, perhaps, one reason why, in this disease, vascular action predominates over the degree of vital energy.

M. Ribes has fixed the seat of this disease in the venous capillaries. Cruvelhier, in his researches on phlebitis, maintains the same doctrine. Rayer asserts phlebitis to be merely a complication of erysipelas, especially of that form which invades the cellular texture. We are inclined to believe that somewhat of the pathology of this disease may be explained by a reference to the affection of the venous system. Erysipelas and phlebitis have been known to prevail under the same epidemic constitution of the air. In post-mortem examinations, venous congestions are commonly observed in the brain; and when visceral abscesses are formed, they can be traced to inflammation of the venous capillaries, subsequent to diffuse inflammation of large veins, or the contamination of the blood with purulent matter.

Erysipelas may derive some modification from the state of the circulating fluids. It occurs in constitutions where a deficiency of fibrin, and a retention of excrementitious matter, has been caused by the habitual and intemperate use of alcoholic liquors. It is, perhaps, most frequent in plethoric constitutions, where a redundancy of fibrin, coloring matter and albumen, has resulted from the free use of animal food, fermented liquors, and over-repletion. The states of the blood manifestly vary in different cases of this disease. It remains for chemistry to furnish analyses of the blood, sufficiently exact to illustrate the conditions in which they differ, and those in which they agree. Though our knowledge of the morbid conditions of the blood, in erysipelatous inflammation, is neither precise nor complete, yet in individual cases it may be sufficient to afford satisfactory grounds for the use of many appropriate remedies.

Disorder of the digestive organs is a prominent and constant element in the pathology of erysipelas. This derangement of the functions of the alimentary canal is connected with an imperfect performance of the secretory functions, especially of the liver. This is essentially the most practical point in the pathology of the disease, and constitutes the basis of important therapeutical indications.

The local disease is, then, a manifestation of an internal morbid state. It never occurs in a healthy constitution. Its course is regulated by the peculiar morbid habit of the system. In all stages of the disease, therapeutic measures must have reference to the existing morbid diathesis. It is not inflammation, as some authors advance, merely modified by the texture invaded—the structure of the skin and cellular tissue. Some portion of the disturbance of the economy may be explained by the reaction of the local disease upon the constitution. But it is plain that the whole mystery of its pathology is not to be explained by the word inflammation, modified by the anatomical characters, the vital properties and physiological relations of the tissues affected. It differs from phlegmonous inflammation, in regard to the power of effusing coagulable

lymph; in its diffusive character; in its intimate connection with an unhealthy constitution; in the peculiar irritability or impaired energy of the nervous system; in the predominance of vascular action over the degree of vital power; in the tendency to metastasis to internal organs; and in its sudden transitions, with respect to vascular excitement and nervous energy.

Erysipelas, though essentially depending for its origin on a peculiar morbid diathesis, is greatly modified by constitution, habits, existing complications of functional or organic disorder, the stage of the disease, its particular seat, and sometimes its peculiar cause. The diagnosis of the disease is readily formed by an attention to its peculiar symptoms.

Prognosis.—The prognosis of erysipelas will be determined by a consideration of the age and constitution of the patient, the form of the disease, its particular seat, and the existing complications. In infancy and old age, the enfeebled energies of the system render its result doubtful. It is almost always fatal when, in such patients, it attacks the genital organs. It is fatal when it invades the cellular tissue of the throat and neck, under the influence of an epidemic state of the air. Simple erysipelas, in the youthful and robust, or arising from slight disorder of the biliary function, proceeds to a safe termination. Phlegmonous erysipelas, when it advances to the suppurative stage, is always a serious and often a fatal disease. Oedematous erysipelas, occurring in broken-down constitutions, is generally fatal. Metastasis of erysipelas, to the brain or to an internal organ, previously affected with chronic disease, is most often fatal. Erratic erysipelas generally proves of fatal augury, from the fact of its frequent connection with internal organic disease, and its great liability to metastasis. The complications of erysipelas with pharyngeal inflammation, with phlebitis, and with adynamic fevers, are almost uniformly fatal. Erysipelas has seemed, in some instances, to be a salutary effort of nature to remove certain diseases, as asthma, gout, peripneumonia, colic, rheumatism, and chronic affections of the skin.

[To be continued.]

MALACOSTEON.

[A brief report of this extraordinary case has already appeared in the *Journal*; but as the following comprises some particulars not embraced in the former, we give it an insertion.—ED.]

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—I herewith send you a hasty sketch of the case of *mollities ossium*, which occurred in the neighboring town of Cornish. The history of the case is taken from the note-book of a very intelligent sister of the deceased. The post-mortem examination was made the day after death, by Drs. Blanchard, Bartlett and myself.

These notes were sketched a short time after the examination, with an intent to make a new and more perfect report of the case when I had leisure, but circumstances beyond my control have rendered it impossible for me to do as I wished. I therefore send you the imperfect

notes as first taken, which you can make such disposal of as you see fit. I regret that I have not had time to examine the chemical composition of the bones, as I intended. From post-mortem appearances, however, there can be no doubt that the stomach—Nature's great laboratory—was the organ primarily affected; and that in consequence, there was a want of due proportion between the animal matter and earthy phosphates which so nicely combine to form bone. Yours, &c.

Claremont, N. H., May 16, 1840.

A. G. SKINNER.

Lucy W. Harrington died at the age of 43. Feeble constitution from childhood. At the age of 8, had stooping, from some disease of neck. Stomach irritable, and much headache till the age of 16; at that time headache less. Stomach more irritable, extremely acid; pain in stomach on taking food. Vomited from slight causes, as leaving a bit of thread on the tongue while threading a needle, or seeing others place a pin in their mouths, &c. During life subject to occasional pain in bones. In 1820 tumor appeared on the right arm, attended with enlarged glands of axilla. Succeeding this was a tumor on left breast, which disappeared after an accidental blow upon the part. A scirrhus tumor soon after made its appearance on the right breast, involving the whole gland. Pain in back of neck and bones generally increasing. In Dec., 1836, a *cancer doctor* made an application, which produced a sloughing of the entire breast, and an extensive ulcer during the remainder of life. In Feb. following severe pain and spasm of muscles about the right hip.

May, 1837.—Spontaneous and permanent dislocation of right hip. Pain and spasm in left hip. Agonizing pain in all the bones. Stiffness of neck. Neck much bent forward. Urine at times greatly increased, and depositing an abundance of greyish sediment.

June, 1838.—Right collar bone broken by an attempt to remove her from her chair to the bed; next the thigh-bone broken, by the spasmodic contraction of the muscles as she was attempting to move the limb by supporting the weight with her own hands. Contraction of muscles sufficient to draw the limb quite in contact with the chest. Head so much drawn forward that the forehead and knee were in contact. In this situation had a severe attack of pneumonia.

The whole number of fractures, exclusive of ribs, was 19, including the lower jaw, which was fractured once several months before death. Preceding the fracture, excruciating pain was experienced in the part of bone about to break. There was a double curvature of the spine, which, together with the contractions of the limbs as they broke and bent in almost every direction, reduced her length at one time to 28 inches. She was of common stature before the attack of disease. Altogether her appearance was indicative of intense and constant suffering. Some of the fingers remained of the usual length, but others were shortened near half their length by interstitial absorption. The hand was distorted by the same cause. At death, which took place Nov. 29, 1839, she measured 36 inches.

Post-mortem appearances.—Mucous membrane of stomach exhibited indubitable evidences of chronic inflammation. Granulations along the

large curvature, and near the pylorus, covering a large portion of the inner surface. Some thickening and induration of pylorus. No appearance of recent ulceration. Liver nearly natural in size, but covered with scirrhus tubercles, which occupied near a third of its whole surface. These tubercles were of a whitish appearance, from one line to an inch in diameter, and when cut into appeared of the consistence of soft cartilage. On passing the knife over the cut surface, a semi-fluid substance would collect on the edge, of the color and consistence of cream. Gall-bladder much contracted and entirely empty; only a very little orange-colored bile could be scraped from its inner surface. The right kidney was healthy; the left was filled with calculi, from the diameter of two lines to minute gravel or sand—white and jagged in appearance. Ovaries both scirrhus, somewhat enlarged, and resembling in appearance the tubercles of the liver.

In opening the thorax the sternum was divided readily throughout its whole length with a scalpel. The ribs much diminished in size by absorption—several of them broken—all very brittle and easily broken, in their natural position, by the fingers. A portion of four ribs lying beneath the ulcer on the breast was entirely absorbed. Right cavity of thorax much diminished—lung adhered to the parietes entirely; some portion hepatized; the remainder infiltrated with dark-red serum. No portion was pervious to air. Left portion of thorax less contracted. A small quantity of serum in pleural cavity. Pericardium contained three times the usual amount of serum. Lower lobe of lung filled with serum; upper lobe nearly healthy, and was the only portion by which respiration was performed.

All the bones examined were readily divided with a scalpel. So great was the disorganization, that whatever remained of earthy matter offered but slight resistance to the knife. A fragment of bone was easily broken down, and had then much the appearance of sand mixed with mucus.

In the first cases of fracture there was evidently an effort of nature for reunion—the substance thrown out bearing some resemblance to ligament, but soft, possessing little strength, and furnishing, on passing the edge of the knife over it, the same whitish fluid as was found in the tubercles of the liver. In the more recent fractures, no attempt had been made at reunion.

MORE FACTS IN RELATION TO VACCINATION.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I submit the following statement of such facts as have recently come under my observation, hoping that they may prove useful in convincing the skeptical of the efficacy of kinepox as a substitute for smallpox. Many reports have been in circulation among the people, in this vicinity, detrimental to the expansion of cowpox, which have caused a delay of vaccination till the smallpox has broken out in some of their families. One is, that it will serve only a temporary purpose; and unless

re-vaccinated, a person is as liable to have the smallpox after vaccination as before. Another is, that it only answers a partial purpose, and will not wholly insure a person against variola or varioloid, and therefore he may through life live under continued apprehensions and fears of the contagion of those varieties of the same disease.

It is not my object to give a detailed account of the treatment of my patients, but merely to show that the cowpox has been an effectual antidote to smallpox in the several instances to be described.

About the first of February last, the smallpox made its appearance in four different families, in one of our school districts; the subjects were four scholars; the first a lad about 18 years old, the second a girl about 12, the third a girl of 9, the fourth a boy about 8. Neither of them had ever been vaccinated. The family to which the first belonged consisted of four members, all adults, besides the patient, two of whom had been vaccinated and two had not. They were all vaccinated as soon as the eruption gave satisfactory evidence that the patient had the smallpox. It proved a severe case; the face was so swollen that the patient's eyes were closed for several days. The eruption appeared on the 4th day of Feb. and run through its course without a secondary fever, and he speedily recovered his health. Now it is the 4th day of May, and neither of the vaccinated persons has suffered any sickness, except what follows vaccination.

The second broke out on the 5th day of Feb., and was a similar case to the first, till the 13th, when the secondary fever took place, accompanied with cough and inflammation in the lungs, which continued till the last of the month before her fever manifested any abatement, and her friends despaired of her recovery. She is now restored to health, May 4th. This girl lived in the house with her grandmother, uncle, aunt, and a large family of cousins. The uncle, aunt, and several of the cousins had never been vaccinated till two days after the eruption appeared upon the patient, when the whole family were vaccinated, and have suffered no inconvenience, except from vaccination, to the present time, May 25th.

The eruption upon the third patient appeared on the 5th Feb., was of the distinct kind, and run a regular course. The secondary fever was slight, and the patient recovered without any distressing symptoms. The parents of this child had been vaccinated nearly 30 years, and part of the children about three years. The remainder I vaccinated two days after the eruption appeared upon the patient. The youngest, a child about two years old, kept with its mother, who had the care of the patient, night and day. About the 11th day after vaccination, the child had a sore arm and other symptoms accompanying cowpox, and appeared more feverish than the other children vaccinated at the same time. On the 14th day from the eruption of smallpox on the other patient, the infant broke out with varioloid, which passed off in a very mild manner, and was the only case of varioloid which occurred among the numerous members of the above-stated families. Is it not probable that this child had received the contagion previous to vaccination?

The fourth patient broke out on the 7th of Feb. His disorder run

a regular course, and terminated favorably. The family consisted of four adult persons and one infant. The mother of the patient and the infant had not been vaccinated previously to the sickness of the patient, but they were soon afterwards, and the other members were re-vaccinated at the same time. Now it is the 25th of May, and none of them have suffered any sickness, except what is consequent to kinapox.

I was called to a child the 8th of April, in a neighboring town, about six months old, with an eruption which proved to be the smallpox of the distinct kind, and which run a favorable course. The parents of the child and other children of the family had been vaccinated. The mother nursed the child to the close of the disorder, and none of them suffered any inconvenience from contagion.

I think, in the above stated cases, the evidence adduced must convince the doubting part of the community, and amply testify to the efficacy of cowpox as a substitute for smallpox. The people in this vicinity have dismissed their doubts which formerly existed, and have full confidence in the virtues of vaccination.

SILAS BROWN.

Wilmington, May 25, 1840.

BOOT OINTMENT IN SCALDS.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—One of your correspondents, in a late No. of the Journal, refers to a case related in a recent New York paper, of extensive scalding which was cured by the use of soot ointment. This application to burns is not entirely new to the profession, although it may not be mentioned as one of the medical uses of soot in any treatise upon medicinal remedies. Several years since, whilst in the service of the Massachusetts Hospital, I employed the soot ointment in a number of cases of severe scalds and burns, by the direction of the visiting surgeon. Upon referring to my notes, I do not find any evidence that it had a peculiar good effect upon the cases in which it was used, most of which were of a very severe character, and one of which afterwards terminated fatally. It was used as the sole application in some cases; in others, only a portion of an extensive granulating surface was dressed with this ointment, whilst the remainder was dressed with some other application, that its effects might be better appreciated. The conclusion which we came to, after a trial of it during six weeks or two months, was, that it did not promote the healing of the burn so rapidly as the creosote ointment, for which it was thought it might be a substitute; and that as compared to some other applications commonly used in injuries of this character, it possessed no superiority. I mentioned above, that the cases upon which the soot ointment was tried were of a very severe character; it should also be remarked that they were, with not more than one exception, cases which had already been a considerable time under treatment when this application was commenced.

S. SALISBURY.

Boston, May 22d, 1840.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JUNE 10, 1840.

DR. GREEN'S ADDRESS.

By the request of the medical class of the Vermont Academy of Medicine, Horace Green, M.D., president of the institution, and professor of Theory and Practice of Medicine, permitted the manuscript of his introductory discourse to be published. It belongs to that fine series of opening lectures which were so excellent the past year, as to be considered the commencement of a new era in medical literature in this country. It is characterized by a historical relation, extending through centuries of the past; and it also points to the future, showing what is honorable, and what must be achieved by those who take upon themselves, voluntarily, the vast responsibilities of professional life. The author's narrative of the improvements in medicine is worth preservation, being *multum in parvo*, and yet sufficiently elaborate for the occasion. One of the strongest expressions in the pamphlet is the following, which is too important to be lost sight of at any period of professional life.

"Many other improvements have been made, both in physiology and pathology, whereby our knowledge of the nature and cause of disease, and of the remedies best appropriated to its removal, has been greatly enlarged. So important, indeed, have been these additions to our stock of knowledge, and so great the improvements in medical science, during the last twenty years, that we hesitate not to declare that the physician who was educated anterior to this period, and has not, by studious efforts, kept pace with medical science, is unfit to discharge the duties of his profession. The number, however, says a late medical writer (Johnson), of those who set their faces against improvements, too indolent to read, too obstinate to learn, is rapidly decreasing; and we trust that the day is not distant when better-informed men will rise, like Banquo's ghost before the usurper, and 'push them from their stools.'"

When Dr. Green received an appointment at Castleton, it was generally remarked that the school had made a fortunate selection. The lecture to which these remarks refer, is good evidence of the discreetness of the trustees in the election, and may he long live to teach the principles he has here inculcated.

Syllabus of Dr. Coates's Lectures on Physiology.—A few years ago it was considered quite impossible to present the principles of physiology to a mixed audience, with any degree of success, walled in, as its curious facts were considered to be, by a hedge of unintelligible technicalities. But a revolution has happily taken place in the public mind in this respect, and a constant demand is made upon men possessing the right qualifications, to explain the great laws of organic existence. It is an exalted pursuit to study the animal economy, under the scientific teachings of such a man as Dr. Reynell Coates, of Philadelphia. The scheme of his operations embraces a vast domain: he considers the mind and body also. Twelve lectures constitute a course—and from a close examination of the

several topics classified under each, it seems that nothing has escaped him.

"The principal objects of this course of lectures are," says Dr. Coates, "to diffuse as widely as possible, throughout the community, a knowledge of certain general principles connected with the development of the animal frame, with the applicability of these principles to the every-day business of life—the promotion of health and happiness." Nothing could be more praiseworthy. We not only hope that he has already met with good success in this laudable undertaking, but feel solicitous that knowledge from a source so elevated, should be appreciated wherever it is convenient to instruct the people.

Dr. Gross.—It has been officially announced that Samuel D. Gross, M.D., was elected, at a late meeting of the trustees, professor of Surgery in the Louisville Medical Institute, to the chair vacated by the resignation of Dr. Flint. A personal acquaintance with Dr. Gross, together with an intimate knowledge of his writings, constrain us to say that the Louisville School has been exceedingly fortunate in securing this gentleman's services. May he never be assailed by the spirit of envy, or brow-beaten by those who suppose that talents of a high order are dangerous to the weal of those less gifted. Through the pages of his great work on Pathological Anatomy, now circulating through the land, those who are curious to know the claims of Dr. Gross to the confidence of those who control the destiny of the Louisville Institute, will find ample evidence of his fitness for the station to which he has been unanimously called.

It is probable that Dr. Flint will remain at Louisville as a private practitioner of surgery. Some of his operations have been of a character to extend his reputation widely beyond the precincts of the college.

Maryland Medical and Surgical Journal.—Another number of this Journal has just been received. As a specimen of typography, simply, it is quite equal to any periodical extant. A degree of care is also manifested in constructing the pages, highly creditable to the editors, who, it is very certain, have a just conception of the duty devolving upon them. Diabetes mellitus, by Dr. McDowell, and the Report of Surgical Cases in the Baltimore Infirmary, will be read and hereafter referred to by practitioners, with satisfaction. The paper drawn up by Mr. Stewart, a chemist, under the title of "Observations on the preparation of Hydrocyanic Acid," &c. is one of peculiar value. The review of Dr. Shattuck's translation of Louis on Yellow Fever will gratify the friends of the author and translator. These remarks are made hastily, as first impressions, after passing rapidly through the Journal. Our northern professional brethren are reminded that subscriptions will be received, with pleasure, at this office, and transmitted to Maryland.

Artificial Limbs.—Mr. Henry Packer, of Ashford, Conn., constructs cork limbs most admirably, on a plan wholly his own, which for beauty of workmanship, lightness, symmetry—and the essential thing, durability—are unsurpassed in any country. Physicians can give him, by letter, such exact measure of the limb to be matched, that it would be always worth while to consult the manufacturer in this manner, before making an express journey any considerable distance.

Medical Miscellany.—Dr. Jabez Ward, of Perry Centre, N. Y., is satisfied, by long observation, that females who are in the habit of smoking tobacco, by no means an uncommon practice in some parts of the United States, particularly amongst the Dutch farmers, have more protracted labors than those who are unaccustomed to the habit.—Dr. Turnbull is said to have made a wonderful discovery of a mode of curing deafness almost *instantly*. The age of miracles is past, and this reputed discovery, therefore, cannot be true.—Dr. Bell, of Charlestown, came passenger in the Unicorn, from Liverpool.—Another manufacturer of surgical instruments, a German, has established himself in Boston, who is reputed to be an excellent artist. See his advertisement.—Smallpox still prevails in many places in the interior of New England.—Several new publications on medicine are in a state of forwardness.—Dr. Parker, the professor of surgery in the College of Physicians and Surgeons in New York, has consented to continue his connection with the Berkshire Medical Institution through the next course of lectures. The faculty may be considered a strong and experienced board of instruction.—Some alterations in the quarantine regulations at the port of Quebec, are contemplated, similar to the system in the States. If a vessel is in good condition, without cases of sickness, no detention at Gross Island will be required.—In Dr. Purple's address before the Chenango County Medical Society, he says that "it is a truth that cannot be denied, that there is a growing tendency in the public mind to patronise the ignorant and uninformed as their medical advisers, at the expense of all that science has done to ameliorate the physical ills of man."—Dr. Sumner Ely is president of the Medical Society of the State of New York, and Dr. John B. Beck vice president.—Mr. Morison, the celebrated pill manufacturer, died at Paris on the 10th of May.—Drs. Warren, Hayward, Shattuck, Randall and Bigelow were last week elected consulting physicians of this city.—The Louisville Advertiser of the 25th ult., has nearly two columns and a half upon the subject of the late turmoil in the Medical Institute. The sentiment contained in the article is, that Dr. Flint has been misused, and that the seeds of another faculty explosion are now germinating.

TO CORRESPONDENTS.—To the list of articles already on file for publication, are to be added an obituary notice of the late Dr. Harris, of Connecticut, and a paper on epidemic typhous puerperarum.

MARRIED.—In this city, Woodbridge Strong, M.D., to Miss Harriet A. Torrey.—At Hudson, N. H., B. H. Tripp, M.D., of Londonderry, to Miss Abby E. Winn.

DIED.—At Canterbury, Ct. Andrew Harris, M.D., aged 53.—At New Milford, Ct., Dr. Oliver B. Platt, 28.

Number of deaths in Boston for the week ending June 6, 36.—Males, 16—females, 10.—Stillborn, 3.
 1. Of consumption, 4—lung fever, 2—intemperance, 2—smallpox, 2—old age, 1—erysipelas, 2—infantile, 3—croup, 1—delirium tremens, 1—dropsy, 1—disease of the heart, 2—inflammation of the bowels, 1—fits, 1—debility, 1—inflammation of the lungs, 1.

THE subscriber, wishing to relinquish his business, as a practising physician, offers his stand (which he has occupied for thirty-five years) for sale, situated in the centre of Auburn. Physicians will do well to give an early call.
 Auburn, Mass., May 25, 1840.

June 2—St*

DANIEL GREEN.

TO PHYSICIANS.

A PHYSICIAN located within an hour and a half's ride of Boston, by rail-road, and having a practice of more than \$1000 per annum, with a good prospect of increasing it, offers his situation for sale. Information may be had by addressing the editor, post paid.

M. 13—

REGISTER OF THE WEATHER,
Kept at the State Lunatic Hospital, Worcester, Ms. Lat. 42° 15' 49". Elevation 483 ft.

1846. May.	THERM.		BAROMETER.				Wind, 2, P.M.	Weather, 2, P.M.	Remarks.
	Sun. a. of	Sun. a. of	Sun. a. of	M. of	Sun. a. of	Sun. a. of			
1. Frid.	50	54	53	29.10	29.90	29.96	S	Rain	Showery. Peach and pear in blossom.
2 Satur.	38	58	56	29.16	29.24	29.23	W	Fair	Wild cherry in blossom.
3 Sun.	46	76	64	29.30	29.19	29.12	S W	Fair	Wild columbine and rhodora in blossom.
4 Mon.	50	46	44	28.80	28.62	28.63	N E	Rain	Cold rain.
5 Tues.	40	40	35	28.82	29.03	29.13	N	Rain	Do. Some snow.
6 Wed.	40	49	44	29.18	29.21	29.30	N	Fair	High wind—flying clouds.
7 Thur.	41	52	50	29.18	29.33	29.32	N W	Fair	High wind.
8 Frid.	42	52	52	29.40	29.50	29.48	N W	Fair	Flying clouds.
9 Satur.	40	40	40	29.40	29.34	29.23	N E	Rain	Cold storm.
10 Sun.	38	48	48	29.17	29.30	29.26	N E	Fair	Storm continues. P. M. flying clouds.
11 Mon.	40	58	55	29.26	29.32	29.37	N E	Fair	Apple trees in blossom. Flying clouds.
12 Tues.	41	65	53	29.40	29.39	29.43	N W	Fair	Sun deg. Cold night.
13 Wed.	37	68	60	29.45	29.50	29.52	N W	Fair	Ground frose 1-2 in. Flower. alm'd in blos.
14 Thur.	45	70	61	29.54	29.50	29.47	S W	Fair	Actes racemosa in blossom.
15 Frid.	49	71	58	29.30	29.34	29.36	S W	Fair	Fine showers in the afternoon.
16 Satur.	50	70	65	29.43	29.53	29.61	N W	Fair	Lilac and Tartarian honeysuckle in blos.
17 Sun.	53	80	71	29.63	29.55	29.50	S W	Fair	Iris and tulips in blossom.
18 Mon.	65	86	79	29.45	29.40	29.38	W	Fair	High wind. Piony and Geran. Mac. in blos.
19 Tues.	57	64	56	29.51	29.60	29.60	N E	Cloudy	Narcissus in blossom.
20 Wed.	50	60	58	29.56	29.48	29.43	N E	Cloudy	Horse chestnut in blossom.
21 Thur.	50	54	45	29.26	29.18	29.16	N E	Cloudy	False syringa in blos. Rainy P. M. and eve.
22 Frid.	50	58	58	29.16	29.28	29.30	N	Cloudy	Some rain. Jessamine in blossom.
23 Satur.	54	73	64	29.42	29.54	29.60	N W	Fair	Carolina allspice in blossom.
24 Sun.	48	66	60	29.73	29.83	29.84	S	Fair	Foggy morning. Snowball in blossom.
25 Mon.	47	72	67	29.88	29.82	29.84	S W	Fair	Fog in the low grounds in the morning.
26 Tues.	46	76	66	29.82	29.70	29.64	S W	Fair	Scotch rose in blossom.
27 Wed.	54	84	78	29.51	29.41	29.40	S W	Fair	Monkshood in blossom.
28 Thur.	61	85	78	29.34	29.30	29.26	N W	Fair	Shower. Potentilla tridentata in blossom.
29 Frid.	60	77	66	29.20	29.28	29.34	S	Fair	Splendid auro. borea. Brilliant belt of light
30 Satur.	50	75	67	29.35	29.38	29.34	S E	Fair	Mountain ash in bl. (from E. to W. across
31 Sun.	52	73	68	29.24	29.27	29.30	N W	Fair	(the heavens, at 9 P. M. near sun's path.

The month of May has been very favorable to vegetation. There has been much high wind, an abundance of rain, and much cloudy, dull weather. For the last week the weather has been very fine. Range of barometer has been from 28.62 to 29.88; thermometer, from 37 to 86. Grass and forest trees unusually forward.

SURGICAL INSTRUMENTS.

THE subscriber would respectfully inform the medical profession of the New England States, that he has taken an office at No. 350 Washington street, corner of Hayward place, Boston, where he shall be happy to execute all orders with which he may be favored. Having served for a number of years in Germany, at his profession, and having, also, been employed in England and New York, in forming and finishing instruments of the most delicate kind in use in Surgery, he feels confident that he shall be enabled to give perfect satisfaction to those who may be pleased to patronise him. He begs leave to offer the following testimonial of several medical gentlemen of this city. C. A. ZEITZ.

We, the undersigned, would cordially recommend Mr. C. A. Zeitz as a thorough artist. The surgical instruments of his make, which we have ourselves used, have fully answered our expectations; and we can, therefore, with the more confidence recommend him to the medical profession generally.

JOHN C. WARREN, }
GEO. HAYWARD, } Surgeons to Mass. Gen. Hospital.
S. D. TOWNSEND, }

BERKSHIRE MEDICAL INSTITUTION.

THE Annual Course of Lectures in this Institution will commence on the first Thursday, 6th of August, 1846, and continue thirteen weeks.

Fee for the whole course, \$50. Fee for those who have already attended two full courses, \$10. Graduation fee, \$18.

Theory and Practice of Medicine and Obstetrics, by	H. H. CHILDS, M.D.
Principles and Practice of Surgery, by	WILLARD PARKER, M.D.
General and Pathological Anatomy, by	ROBERT WATTS, JR., M.D.
Chemistry, Materia Medica, and Jurisprudence, by	DAVID PALMER, M.D.
Anatomy and Physiology, by	ROBERT NELSON, M.D.

The Berkshire Medical Institution has been in operation about twenty years, and has been liberally patronised by the public. It has ever been the object of the trustees to make the advantages offered to students, by this School, correspond with the rapidly improving state of medical science.

Pittsfield, Mass., May, 1846.

June 20—1A

PARKER L. HALL, Sec'y.

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR., at 184 Washington St., corner of Franklin St., to whom all communications must be addressed, post paid. It is also published in Monthly Parts, with a printed cover. There are two volumes each year. J. V. C. SMITH, M.D., Editor. Price \$3.00 a year in advance, \$3.50 after three months, or \$4.00 if not paid within the year. Two copies to the same address, for \$5.00 a year, in advance. Orders from a distance must be accompanied by payment in advance or satisfactory reference. Postage the same as for a newspaper.